

AMENDMENTS TO THE SPECIFICATION

Please replace the first partial paragraph on page 18 of Applicants' specification, with the following partial paragraph:

By utilizing HTTP requests, such as is known in the art, the server browser 110 can access information content, including applications, static and dynamic content, at the information source 102. Dynamic content can include script codes such as JavaScript, developed by ~~Netscape~~ NETSCAPE® (www.netscape.com), and Jscript, developed by ~~Microsoft~~ MICROSOFT® (www.microsoft.com).

Please replace the last paragraph on page 20 of Applicants' specification, with the following paragraph:

In another aspect of the exemplary embodiment, the server browser can also select the most appropriate content for the requesting or target client browser component. The limited capabilities of the hardware, operating system and/or software on the target device may limit the formats for image, audio, video, etc. that can be supported directly. In such cases, it is normal for a browser to report to the information source which particular formats can be supported. One particular browser may support the PNG image format, while another may also support JPEG and GIF formats and yet another may support other, non standard formats (e.g. ~~Palm OS~~ PALM OS® devices support only their own native image formats).

Please replace the last partial paragraph on page 21 of Applicants' specification, with the following partial paragraph:

Based on these factors, the server browser might determine that it is likely more efficient to send the data in a format that while larger, takes less time to convert and render on the device. For example, when communicating with the client on an older ~~Palm-OS~~ PALM OS® device using a slow processor and only supporting the native ~~Palm-OS~~ PALM OS® bitmap format, it might be more efficient to convert all images to the native ~~Palm-OS~~ PALM OS® format. While this format is often far less efficient than the original JPEG format of many images and therefore might take longer to transmit the larger images over the air, the extra transmission time might be more than compensated for by the immediate availability of the image in the native format on the device. On newer ~~Palm-OS~~ PALM OS® devices with faster processors, however, the conversion between the image formats on the target device is far

Please replace the first partial paragraph on page 24 of Applicants' specification, with the following partial paragraph:

Preferably, the user agent 110 has the functionality of a traditional PC browser (e.g., ~~Netscape Navigator~~ NETSCAPE NAVIGATOR®, ~~Internet Explorer~~ INTERNET EXPLORER®, and so forth) as well as extended functionality, described below, due to the distributed nature of the electronic device 104. To access the appropriate information content at the information source 102, the user

agent 110 communicates the requested resource identifier to the information source 102.

Please replace the last partial paragraph on page 25 of Applicants' specification, with the following partial paragraph:

Beyond industry conformance, the server browser adds the concept of dynamic user agent 110 functionality by enabling the identity information sent in the request to the information source 102 to vary depending on the type of application being accessed. According to standard industry practice, a content server or information source 102 recognizes the properties of a connected client, and understands how the client browser works. Then, the server sends suitable content to the client so that, for example, the ~~Netscape~~ NETSCAPE® browser may receive different content from ~~Internet Explorer~~ INTERNET EXPLORER® because they report different user agent capabilities in their requests. The different capabilities may be explicitly stated or implied by client name and version information. These and other existing client browsers in the industry always report the same user agent attributes to every content server with every content request. In the exemplary embodiment, however, the user agent 110 attributes that are contained in the request can vary dynamically between requests. In doing so the identity which extracts the most content from the information source 102 will be represented by the user agent 110. The identity to be represented will be determined via pre-configured rules and/or via algorithms taking into

Please replace the last partial paragraph on page 29 of Applicants' specification, with the following partial paragraph:

Referring back to FIG. 1, the server browser 110 has a Cascading Style Sheet (CSS) processor for supporting cascading style sheets. Cascading Style Sheets is now an industry standard developed and promoted by W3C (www.w3.org/Style) and supported by many of today's desktop browsers such as ~~Internet Explorer~~ INTERNET EXPLORER®. It defines a simple mechanism for adding style (e.g. fonts, colors, spacing) to Web documents that describes how the document should be presented on the screen. By attaching style sheets to structured documents on the Web (e.g. HTML), authors and readers can influence the presentation of documents without sacrificing device-independence or adding new HTML tags. The CCS processor can apply elements of style specified in the content

Please replace the first partial paragraph on page 35 of Applicants' specification, with the following partial paragraph:

cHTML browser known as Pocket Internet Explorer on a Pocket PC device running the ~~Microsoft Windows~~ MICROSOFT WINDOWS® CE operating system.

Please replace the last partial paragraph on page 35 of Applicants' specification, with the following partial paragraph:

It should be understood, however, that an additional property of the browser is the ability to download and install other applications or plug-ins as needed to support non-markup based content, including images, audio, video, and multipurpose internet mail extensions (MIME) or secure MIME (S/MIME) document formats such as plain text, ~~Aerobat~~ ACROBAT® (e.g., "*.pdf" format), ~~Microsoft~~ MICROSOFT® Word and so forth. Content of these types is

Please replace the first paragraph on page 54 of Applicants' specification, with the following paragraph:

- The node is an <image> element whose name or ALT text matches a rule that identifies it as an advertisement. Often the names or URLs of advertisement images inserted in page content contain the element "advert" or "ad" or similar (e.g. ~~the a site http://www.nytimes.com~~ may contain[[s]] numerous advertisements whose URLs all include a subdirectory named "ads" or "adx"). Similarly, advertisements often carry ALT text that simply says "advert" or "advertisement".

Please replace the last paragraph on page 62 of Applicants' specification, with the following paragraph:

Preferably, the templates and XSLT style sheets used by the normalizer can be created and registered for use in a number of ways. In one embodiment,

they are created using an external application that works like an HTML editor such as those generally available in the industry (MacroMedia's ~~Dreamweaver~~ DREAMWEAVER®, Microsoft's ~~FrontPage~~ FRONTPAGE®, etc.). The original HTML content can be rendered either directly in the editor application or through an external simulator as it would appear in the client browser, and the user can choose from a menu of options to apply the functions of the template normalizer (matching content, dropping content, moving content, unrolling tables, etc.). Additionally, the same feature set may be implemented as an add-in to a commercially available HTML editor such as MacroMedia's ~~Dreamweaver~~ DREAMWEAVER®, Microsoft's ~~FrontPage~~ FRONTPAGE®, etc.

Please replace the second full paragraph on page 73 of Applicants' specification, with the following paragraph:

FIG. 12 further illustrates the process of the distributed browser 108 of FIG. 1 by showing a screen shot 300 of an exemplary web page (www.yahoo.com) on both a standard PC-based desktop browser (e.g., Microsoft's ~~Internet Explorer~~ INTERNET EXPLORER®) and a screen shot 304 on the ~~RM~~ RIM® 857 electronic device. To view the yahoo.com web page on a PC-based desktop browser, a user might use a mouse and/or keyboard to enter the Universal Resource Locator (URL) that identifies the page.

Please replace the third full paragraph on page 73 of Applicants' specification, with the following paragraph:

The same user can enter the URL in the ~~RIM~~ RIM® device to retrieve the same information as shown on the screen shot 300. However, the screen size of the ~~RIM~~ RIM® device is smaller than that of a typical computer screen of a desktop computer. To accommodate the ~~RIM~~ RIM® screen size, the information is displayed such that the important information is displayed first. In this example, Personal email, Departments, Stores, Features, Arts & Humanities, Business & Economy are displayed first. The user can then appropriately navigate through the rest of the Web site using events such as by clicking, loading, changing, etc. In this example, the Business & Economy folder was expanded to the more information relating to the Business & Economy section, described more below.

Please replace the last partial paragraph on page 73 of Applicants' specification, with the following partial paragraph:

Upon receipt of the event from the ~~RIM~~ RIM® device, the server browser proceeds to perform the request. The user agent retrieves the information corresponding with the

Please replace the last partial paragraph on page 82 of Applicants' specification, with the following partial paragraph:

In another embodiment, the user of the client may be choose to view frames laid out in a manner similar to current desktop browsers (e.g., ~~Internet Explorer~~ INTERNET EXPLORER®, ~~Netscape~~ NETSCAPE®). In order to

render the content in a manner suitable to small or low resolution screens, the size of the frames may be adapted to suit the content rather than the size specified in the original HTML for the page. Frame sizes are designed for larger, desktop size screens and can be specified as having an absolute size in pixels (FIG 22) or a percentage of the screen width (FIG 23). FIGs. 22 and 23 show the effects of following these specifications with a small screen and the poor results. In FIG. 22 the page's left frame

Please replace the first partial paragraph on page 84 of Applicants' specification, with the following partial paragraph:

and landscape modes). As these features become available on resource rich devices, it becomes possible to use these capabilities to display some pages in a usable "desktop layout". The content is not only rendered in the same way as a desktop browser (e.g., Microsoft ~~Internet Explorer~~ INTERNET EXPLORER®) would be rendered, but enough of it is visible and easily accessible that an unfamiliar user can easily navigate within the page to find the content of interest to them.

Please replace the first full paragraph on page 84 of Applicants' specification, with the following paragraph:

Preferably, the characteristics and current mode of the device that it is running on can be examined to automatically determine which is the best display mode for a particular page. FIG. 28 is a flowchart of a process for using the

initial visibility of form input controls to determine the best view for the ~~Google~~ GOOGLE® search page. It can be seen that while the desktop layout works in landscape mode, it does not produce as good a result as the selective horizontal scrolling layout when the device is in portrait mode. Other factors that may be used to automatically determine the best view mode include:

Please replace the first full paragraph on page 90 of Applicants' specification, with the following paragraph:

One such example is the use of authentication by WiFi (802.11) hotspots. The hotspots available today (e.g. in ~~Starbucks~~ STARBUCKS®, ~~MacDonalds~~ MCDONALDS®, etc.) commonly require the user to manually disable all proxy servers in order to log in and authenticate on the network. In one embodiment, browser or other applications might automatically switch to proxyless mode for the authentication and then switch back to server mode once authentication is complete. FIG. 29 shows an exemplary process for deciding when to automatically switch the client browser from server mode to proxyless mode and back again.

Please replace the second full paragraph on page 90 of Applicants' specification, with the following paragraph:

In another aspect, the client examines the characteristics of the underlying network connection to determine when to operate in server or proxyless mode. This is of benefit for those devices that can support multiple types of networks

through either built in hardware or after market add-ons. The market already contains devices with these capabilities and more are expected. For example, ~~Palm~~ PALM® devices are available with both built in GPRS radio and Secure Digital expansion slot that can support a WiFi (802.11) card. FIG. 30 shows an exemplary process for determining the mode automatically based on user settings. The decision for which mode to switch to is based on criteria specified by the user, including such aspects as: